

CLAIMS

1. A rear closure assembly for use with a vehicle, the rear closure assembly comprising:

5 a door having first and second handles for pivoting the door about first and second pivot axes; and

latches on the door engageable with strikers on the vehicle, said latches and strikers forming said first and second pivot axes, and said latches being disengageable by said handles to selectively pivot the door about one of said pivot
10 axes.

2. The rear closure assembly of claim 1, wherein said latches comprise left and right sets of latches at said first and second pivot axes, respectively, and the rear closure assembly further comprises an interlock assembly configured to prevent unwanted simultaneous disengagement of said left and right
5 sets of latches.

3. The rear closure assembly of claim 2, further comprising a left handle operatively connected with said left set of latches to actuate pivotal movement about the second axis, and a right handle operatively connected to the right set of latches to actuate pivotal movement about the first axis.

4. The rear closure assembly of claim 3, wherein said interlock assembly includes:

said latches each having a movable sensor plunger which senses
5 engagement with the respective striker, each sensor plunger being operatively connected with a linkage to selectively permit actuation of one of the handles depending upon the sensed condition of the respective latches.

5. The rear closure assembly of claim 4, wherein each linkage includes:

5 a curved rack connected to the respective handle for movement therewith;

a plurality of blockers engageable with slots formed in the rack; and
cables connecting the blockers to said sensor plungers to actuate
10 movement of the blockers to selectively prevent handle actuation.

6. The rear closure assembly of claim 5, wherein each curved rack includes a lost-motion slot with a follower in the lost-motion slot, each follower operatively connected to the respective latch for disengaging the latch when the handle is actuated, wherein said lost-motion slot allows said blockers on
5 the opposite curved rack to move into a blocking position before the latch is disengaged, thereby preventing simultaneous disengagement of all latches.

7. The rear closure assembly of claim 1, further comprising an electrical connector on the door operative to electrically connect the door with the vehicle.

8. The rear closure assembly of claim 4, wherein each said sensor plunger is tilted to provide improved packaging.

9. A rear closure assembly for use with a vehicle having a rear opening, the rear closure assembly comprising:

5 a rear closure positioned in the rear opening, said rear closure being pivotally connected to the vehicle about first and second vertical axes to facilitate

swinging pivotal movement about the first and second axes alternately to different opened positions; and

latches on the rear closure engageable with strikers on the vehicle,
10 said latches and strikers forming said first and second axes, and said latches being disengageable by said handles to selectively pivot the rear closure about one of said vertical axes.

10. The rear closure assembly of claim 9, wherein said latches
comprise left and right sets of latches at said first and second pivot axes,
respectively, and the rear closure assembly further comprises an interlock assembly
configured to prevent unwanted simultaneous disengagement of said left and right
5 sets of latches.

11. The rear closure assembly of claim 10, further comprising a
left handle operatively connected with said left set of latches to actuate pivotal
movement about the second axis, and a right handle operatively connected to the
right set of latches to actuate pivotal movement about the first axis.

12. The rear closure assembly of claim 11, wherein said
interlock assembly includes:

said latches each having a movable sensor plunger which senses
5 engagement with the respective striker, each sensor plunger being operatively connected with a linkage to selectively permit actuation of one of the handles depending upon the sensed condition of the respective latches.

13. The rear closure assembly of claim 12, wherein each linkage
includes:

a curved rack connected to the respective handle for movement
5 therewith;

a plurality of blockers engageable with slots formed in the rack; and

cables connecting the blockers to said sensor plungers to actuate
10 movement of the blockers to selectively prevent handle actuation.

14. The rear closure assembly of claim 13, wherein each curved rack includes a lost-motion slot with a follower in the lost-motion slot, each follower operatively connected to the respective latch for disengaging the latch when the handle is actuated, wherein said lost-motion slot allows said blockers on
5 the opposite curved rack to move into a blocking position before the latch is disengaged, thereby preventing simultaneous disengagement of all latches.

15. The rear closure assembly of claim 9, further comprising an electrical connector on the door operative to electrically connect the door with the vehicle.

16. A rear closure assembly for use with a vehicle, the rear closure assembly comprising:

a door having first and second handles for pivoting the door about
5 first and second vertical pivot axes;

latches on the door engageable with strikers on the vehicle, said latches and strikers forming said first and second pivot axes and said latches being disengagable by said handles to selectively pivot the door about one of said pivot
10 axes;

wherein said latches comprise left and right sets of latches at said first and second pivot axes, respectively; and

- 15 an interlock assembly configured to prevent unwanted simultaneous disengagement of said left and right sets of latches.